

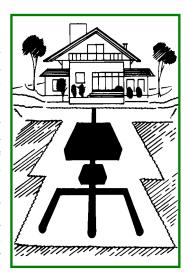
# Protect Our Streams & Ponds!

# Use Household Best Management Practices

A variety of everyday Household Best Management Practices (BMPs) can be used by Georgetown residents to help protect the quality of our streams and ponds, including *Rock & Pentucket Ponds*. These practices include:

## Maintain Septic Systems in Good Working Order

- Improperly maintained septic systems pose a threat to your family's health and the environment by releasing inadequately-treated sewage (bacteria, viruses, nutrients) onto the ground surface or into nearby waterways, such as the tributary streams that feed into *Rock & Pentucket Ponds*.
- Watershed residents should look for warning signs of a failing septic system (slow draining toilets, sewage odors around the property or in nearby storm drains, sewage effluent ponding over the leach field, sewage back-ups in the house). Problems should be attended to at once by a certified septic contractor.
- Residents should have their septic systems inspected and pumped regularly (every 3–5 years); should avoid using garbage grinders/disposals; should refrain from pouring hazardous chemicals or non-biodegradable products down the drain; and should practice water conservation by using low flow showerheads and toilets.



#### Minimize Fertilizer Use

- Fertilizers contain nitrates and phosphates, which stimulate the growth of aquatic vegetation, and also cause nuisance algae blooms that can lead to fish kills. If possible, watershed residents should avoid fertilizing their lawns.
- Mulching or other organic gardening methods can be used to achieve the desired fertilization results; if fertilizer is required, watershed residents should choose one that contains no phosphorus.
- Fertilizer application should be avoided during the summer and fall. Turf grass demand for nutrients is low at this time and unused fertilizer is more likely to end up in watershed streams and *Rock & Pentucket Ponds*. And don't fertilize just before a heavy rainfall it will only wash away and pollute our town waterways.
- Over-application of fertilizers should also be avoided. Watershed residents should have their soil tested to determine what additional nutrients are actually needed.



# Minimize the Use of Pesticides, Herbicides, and Insecticides

- Many household products made to exterminate pests are also toxic to humans, pets, wildlife, fish, small aquatic organisms, and plants.
- Natural pest control methods should be used whenever possible. If pesticides and herbicides are required, watershed residents should read the labels carefully to determine the correct application amounts. Lawn chemicals should not be applied just before it rains.

#### Maintain Slope Stability

- Watershed residents can stabilize slopes on their property with deep-rooted vegetation to increase storm water infiltration and decrease erosion.
- Steep slopes can also be broken up with retaining walls and terraces.
- Fixed shoreline bulkheads and retaining walls should be replaced with native vegetation to stabilize banks. [Reinforced banks tend to deflect waves from boats and storms and concentrate the wave energy. These waves will direct their force on unprotected banks causing even greater bank undercutting and erosion. Native grass and shrub vegetation buffers along the shore will help to absorb wave energy as well as hold the soil in place.]

#### Minimize Impervious Surfaces

- Watershed residents should limit areas of impervious surfaces, such as paved driveways, patios, and parking lots.
- Permeable stone and gravel, instead of concrete or asphalt, will allow for increased infiltration of stormwater.
- Areas of grass lawn, which can form a mat of dense vegetation that prevents infiltration and encourages stormwater runoff, should also be minimized.

# Use Low Maintenance Landscaping Techniques

- Native vegetation requires less watering and chemical additives, such as fertilizers and pesticides, to encourage and maintain healthy growth.
- Watershed residents should establish the smallest lawn that still satisfies their recreational and aesthetic needs.
- Native sedges, wildflower meadows, and gardens can be used as alternatives to lawn.



## Control Stormwater Runoff On-Site

- Rainfall runoff should be directed into a rain/wetland garden or a vegetated swale to slow the flow of water and increase infiltration.
- Planting trees and other deep-rooted vegetation, such as dogwoods, will increase absorption of stormwater.
- Maintaining or restoring vegetated riparian buffers along the edge of watershed streams and *Rock & Pentucket Ponds* will decrease stormwater runoff velocities and allow natural pollutant attenuation through the vegetation.
- All soil surfaces should be kept vegetated or mulched to encourage infiltration and reduce erosion. During construction, install silt fences, hay bales, and/or geotextile fabrics to stabilize and retain soil on-site. Following construction, re-vegetate bare soil surfaces as quickly as possible.
- Downspouts from roof gutters should be aimed away from foundations and paved surfaces and directed toward vegetated areas (or into a rain barrel for later use in watering lawns and gardens!)
- For roofs without gutters, residents should plant grass, spread mulch, or place gravel under the drip line to prevent soil erosion and increase the ground's capacity to absorb water.

A Public Outreach Bulletin of

**Georgetown Stormwater Management Program** 

with assistance from

**Merrimack Valley planning Commission**